Distributed by:

JAMECO® ELECTRONICS

www.Jameco.com ✦ 1-800-831-4242

The content and copyrights of the attached material are the property of its owner.

Jameco Part Number 175062

September 8, 1999	Specification	NO. K0716	1/5

Model	Draw Up	Approved	Ratify
OTL-7AL (1.3V)			

1. General

This specification applies to Cylindrical Permanent Magnetic Motors DC Model OTL-7AL.

2. Operating Condition

Item		Specification	Condition Remark
2-1	Rated Voltage	1.3V DC	
2-2	Operating Voltage	0.7～1.6V DC	
2-3	Rated Load	Vibration weight	As specified in the outline drawing.
2-4	Rated Speed	7000 ± 1500rpm	
2-5	Direction of Rotation	CW (clockwise)	
2-6	Motor Posture	All positions.	
2-7	Operating Environment	-20℃～+60℃ 10～90%RH	
2-8	Storage Environment	-40～80℃ 5～95%RH	No condensation of moisture.

3. Measuring Condition

Item		Specification	Condition Remark
3-1	Temperature	20 ± 2℃	
3-2	Humidity	65% ± 5%RH	
3-3	Motor Posture	Motor shaft horizontal	Lock the motor in a test fixture.

All data are based on the measurement under the temperature of +20℃ and humidity 65%RH. However, the ranges of temperature +5～+35℃ and humidity 45～85%RH are to be applicable as long as no problem occurs.

4. Mechanical Specification

Item		Specification	Condition Remark
4-1	Configuration	As specified in outline drawing	Outline drawing No.: OTL-7AL-A1
4-2	Appearance	There shall be no evidence of mechanical damage and shall not have inadequate corrosion and so on.	Visual examination (allowable extent is based on boundary sample.)
4-3	Shaft Play	0.1mm～0.3mm	

4-4	Mass	4.0g Approx.	
4-5	Holding Strength of Vibration Weight	49N (5kgf) Min.	

5.Performance and characteristics

Item		Specification	Average	Condition Remark
5-1	Rated Speed	7000 ± 1500rpm	7000rpm	At rated voltage and rated load (counter weight).
5-2	Rated Current	75mA Max.	62mA	
5-3	Stall Current	140mA Max.	112mA	At rated voltage
5-4	Starting Voltage	0.7V DC Max.	0.65V DC	At rated load (counter-weight) any position of rotor.
5-5	Insulation Resistance	1MΩ Min.		At DC 100V between lead wire and case.
5-6	Terminal Resistance	10Ω Approx.		At 20℃
5-7	Mechanical Noise	<50dB (A). A Say 50dB (A) Max.	<30db (A). A Say 30dB (A) Max.	At rated voltage and rated load (counter weight). Background noise 28db(A) Max. Lock the motor in a test fixture (shaft horizontal). Suspensory method provided.

6. Reliability

Item		Test Condition	Requirements
6-1	Life	Voltage : 1.3V DC Load : Counter weight Temperature : 20±2℃ Humidity : (65±5)%RH Test State : Lock the motor in a test fixture (shaft horizontal).	After the test motors shall be approved as specified in Item 7-1.
	6-1-1	Test Mode : Continuous operation (CW) Test Time : 100 hours	
	6-1-2	Test Mode : 8 seconds on (CW) 8 seconds off Test Cycle : 20000 cycles	
6-2	Lay under Low Temperature	Temperature : –20±2℃ Time : 96 hours	After 2 hours exposure in ordinary temperature and moisture, motors shall be approved as specified in Item 7-2.
6-3	Lay under High Temperature	Temperature : 60±2℃ Time : 96 hours	
6-4	Lay under Humidity	Temperature : 40±2℃ Humidity : (90±5)%RH Time : 96 hours No condensation of moisture.	
6-5	Vibration	Displacement : 1.5mm (p-p) Frequency : 10~55Hz Period : 1 minute log sweep (10~55~10Hz) Direction : x, y, z Time : Each 1 hour	After the test, motors shall be approved as specified in Item 7-2.
6-6	Free Fall	Set the motor to the approximately 75g (including the motor) weight of block and drop the motor onto the concrete floor. Height : 1.2 meters Direction : ±x, ±y, ±z Number of Times : Each 2 times	

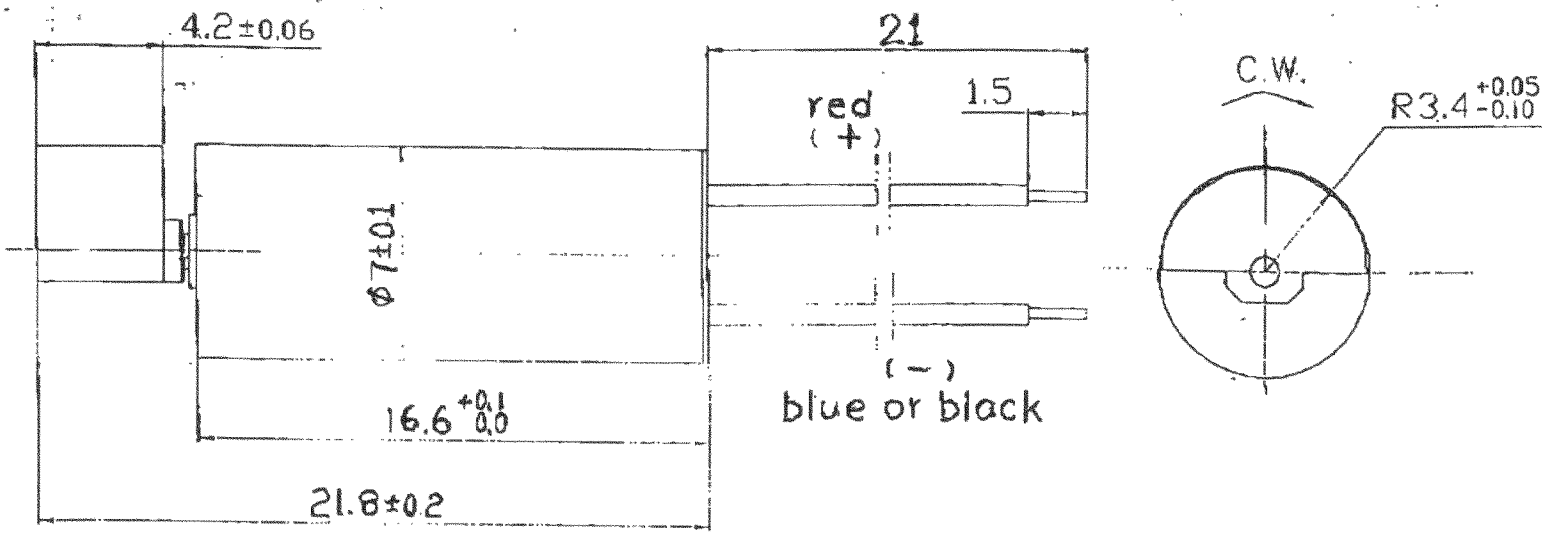
7. Requirements

Item		Requirements	
7-1	Table A	1) Rated Speed	: data ± 30% Max.
		2) Rata Current	: data ± 30% max.
		3) Insulation Resistance	: 1MΩ Min.
		4) Starting Voltage	: 0.7V DC Max.
7-2	Table B	1) Rated Speed	: data ± 30% Max.
		2) Rata Current	: data ± 30% Max.

OTL-7AL-A1

Technical Requirements

1. Please refers to GB/T 1804-m if the dimension of tolerance is not indicated;
2. Please refers to GB/T 1184-1996-Grade K if the tolerance of form and position is not indicated;
3. Shaft play is between 0.1~0.2mm.



标记	处数	更改文件号	签名	日期				
设计		标准化			图样标记		重量	比例
校对		批准					4.0g	5:1
审核								
工艺		日期			共 27 页		第 1 页	

OUTLINE DRAWING

OTL-7AL-A1